

ing it therapeutically if the diagnosis is confirmed. One would assume, although this is not mentioned in the conference, that in each of the patients a nasogastric tube was in place and intravenous fluid was running when the examination and treatment were undertaken. As indicated by cases 2, 3 and 4, the advantages of attempted reduction by hydrostatic pressure are not only the avoidance of operation in some 75 percent of the cases but a reduction of the intussusception to the right side of the colon or the cecum in virtually all of the rest (in fact, in 10 percent of those operated upon after "unsuccessful" reduction, the operation discloses that complete reduction had been achieved). It is not indicated that the barium enema reduction was conducted by a surgeon or with the surgeon present and the operating room formerly alerted to prepare for the operation. To undertake barium enema reduction in the office or even in the hospital without the participation of the surgeon who will do the operation, if one is required, invites unnecessary delay; it perhaps is not unlike having a radiologist manipulating fractures under a fluoroscope calling in an orthopedic surgeon only if open reduction is required.

One might be permitted some astonishment about Dr. Nyhan's description of mucus in the vomitus as if this were in some way related to the mucus in the currant-jelly stool. As we have shown experimentally, the epithelial cells of the intussusceptum are quickly converted into goblet cells swollen with mucus, the source of the jelly. It is not known to me whether it has been shown that in children with intussusception or any other type of acute intestinal obstruction, large amounts of mucus develop in the upper gastrointestinal tract. I have certainly not recognized such mucus production.

The concern about the reduction of an anatomical leading point lesion expressed in the conference by a member of the audience is, of course, a common one. One would agree that it is precisely those intussusceptions with polyps, enterogenous cysts and Meckel diverticula which are least likely to be successfully reduced by barium enema, and, in any case, these are not lesions which are, in themselves, as inherently dangerous as let us say a carcinoma causing intussusception of the colon in an adult.

It is difficult to escape the conviction that a very large proportion of intussusceptions are due

to enlargement of the lymphoid patches in the terminal ileum, probably in association with viral diseases, although as the discussion indicates results of several studies are only strongly suggestive. It is noteworthy that many of the other conditions associated with intussusception involve hemorrhagic lesions of the mucosa—Henoch-Schönlein purpura, trauma, leukemia, chemotherapy.

No comment was made in the conference as to how late in the course of the disease it was still reasonable to undertake barium enema reduction, other than to state that the yield decreased progressively. Since patients have nasogastric tubes in place, are receiving fluids intravenously and are receiving antibiotics (always administered to any patient suspected of having potentially ischemic bowel), little is lost and much is gained by attempting barium enema reduction in all patients with intussusception. Some intussusceptions after several days are nonstrangulating and can be completely reduced and, in most of the others, the intussusception will be reduced to the right colon permitting a right lower quadrant exploration instead of a general laparotomy.

MARK M. RAVITCH, MD
Surgeon-in-Chief
Professor of Surgery
Montefiore Hospital
University of Pittsburgh
School of Medicine
Pittsburgh

The Increasing Use of Emergency Services: Why Has It Occurred? Is It a Problem?

THE ANNUAL NUMBER of emergency room (ER) visits in this country has risen from 18 million in 1958, to 44 million in 1968, and 77 million in 1977.¹⁻³ Although many of these visits are for emergency conditions, it is clear that as many as 70 percent to 85 percent are for nonurgent problems.²⁻⁴ Blaisdell notes in the Trauma Rounds elsewhere in this issue of the journal that these trends were not caused by a recent epidemic of emergencies. Their roots are found in social and economic forces that must be understood in order to decide whether a problem exists that requires action.

As is the case with rising health care costs, the greater use of emergency services seems to be associated with factors related to both the demand

for and supply of medical care. Beginning with demand, patients seem to value the convenience of 24-hour access available at ER's. This is especially important for those without a personal physician, for families on vacation, or for persons who have recently moved. The decreasing availability of personal physicians, the increase in physician specialization, and the wide range of services immediately available in an ER are other suggested reasons why patients choose an ER as an alternative to a physician's office for non-urgent care. It is ironic that physicians are perceived as being less accessible at a time when the ratio of physicians to population is rising rapidly. Another demand factor, listed by Blaisdell, is widespread insurance coverage for emergency care. It often results in lower out-of-pocket costs for ER treatment than when the same non-urgent condition is treated in other settings. All these factors serve to encourage patient demand for ER services for nonurgent conditions.

Hand-in-hand with the increased demand for emergency care, an increase in supply also encourages use of ER's. Acute care hospitals are finding ER's to be an attractive means of filling empty hospital beds. Blaisdell, Mangold⁵ and others claim that many hospitals have advocated open-door ER policies to combat decreasing inpatient occupancy rates and to generate hospital revenues.⁵ For example, in San Francisco, a city with a high ratio of beds per population (5.6 per thousand compared with 3.9 for the state of California) and a low hospital occupancy figure (60 percent compared with 66 percent for California and 75 percent for the entire United States),^{6,7} ER availability has expanded dramatically. According to Blaisdell, 14 of the 18 San Francisco acute care hospitals now have 24-hour ER's staffed by full-time physicians, whereas 10 to 15 years ago there was only one.

A number of factors have created incentives to staff these ER's with full-time emergency care "specialists." The ruling in the Darling case held hospitals legally responsible for care delivered on their premises by the medical staff.⁸ It stimulated many hospitals to shift their ER coverage patterns, as did a 1971 California ruling by Attorney General Younger that prohibited hospitals from employing physicians specifically to render emergency services.⁵ Today, large numbers of ER's are staffed on a contract basis by firms of ER physicians. The American College of Emergency Physicians, founded in 1969, now has 9,600 members

and is pressing for separate board certification as the 23rd medical specialty.

Many physicians, especially recent graduates who may desire to remain in metropolitan areas with high concentrations of physicians, find ER work attractive. Financial advantages and predictability of hours on duty were the two main reasons for preferring emergency practice, according to a survey of physicians engaged in emergency care in Connecticut.⁹ The reluctance of personal physicians to be on call outside regular office hours also encourages ER use, sometimes explicitly. This policy was forcibly argued recently by Egerton in *Medical Economics*. The author, a general practitioner, claimed that ER care was of higher quality than his own off-hours coverage and prophesied that the unrewarding anachronism of being on call would soon go the way of house calls. After all, he reasoned:

Most of the problems that patients phone about can safely wait for normal office hours. The patient with a true emergency can't usually be helped over the phone, and there is some evidence that when a patient delays calling an ambulance to speak to his doctor, the results can be harmful. The on-call detail is also a considerable inconvenience and irritation to the doctor's family, possibly having adverse effects on his health as well. Who knows how many MD marriages have floundered on rocks such as these? And, finally, being on call can be financially unrewarding.¹⁰

Given the excellent record of well-staffed ER's in caring for real emergencies and the convenience they offer for routine problems, one might conclude, as did a recent article, "Perhaps we should stop asking why people come to an emergency department and instead ask why anyone gets his care anywhere else."¹¹

There are at least two powerful arguments against ER use for routine care. The first is that the episodic nature and lack of systematic follow-up of routine problems seen in ER settings does not result in good quality care. At least some data support this argument. Studies by Brook at the ER's of Baltimore City Hospital and Johns Hopkins Hospital show that patient care was adequate for only about 25 percent of patients with nonurgent gastrointestinal symptoms. In general, diagnostic care was rated higher than formulation of management plans or patient outcomes.^{12,13} For conditions such as hypertension, diabetes mellitus, gastrointestinal symptoms, behavioral problems, chronic depression, and others where long-term management and attention to patient compliance are essential for optimal care,

routine episodic ER care may be of poorer quality than continuing care by a personal physician.

The second argument is economic. ER care for nonurgent conditions is expensive. A recent survey of five San Francisco Bay Area hospital ER's ascertained charges for a patient with a sore throat who would be evaluated with a routine throat culture and a complete blood count. Charges ranged from \$63 to \$99 (Judy Schwartz, Health Policy Program Intern, unpublished data). These high charges may be necessary to cover ER expenses, but they clearly represent an inefficient and costly use of medical resources. Even if third-party insurance covers most ER bills, the consumer eventually ends up paying for the high cost of ER care through higher premiums and taxes.

The problem is how to improve the appropriateness of ER care. A range of remedies is apparent, none of which is without major drawbacks. The demand for ER services could be decreased by having patients share in the costs of care through deductibles or copayments. Such deterrents, however, are most effective for the poor, who are the group tending to be in greatest need of health care. Denial of payment for nonurgent ER care by third-party carriers might deter inappropriate use, but it would impose conflicting loyalties on physicians and hospitals and introduce another cumbersome claims review process.

Solutions addressed to the supply side could improve the accessibility of personal physicians. Reports in the medical literature suggest a reduction in ER use concomitant with the introduction of group practice.^{14,15} However, without some fiscal or organizational incentives to provide comprehensive coverage, it is doubtful that this will occur. Recent attempts to increase the proportion of physicians in primary care practice could conceivably increase accessibility during off-hours, although this would not happen if they follow the advice of Dr. Egerton. Such a solution would be a long-range one, given the time required to train physicians.

Another potential solution is to develop 24-hour walk-in facilities for lower cost, easy-access, nonurgent care. These could be established in hospitals with large ER volumes. The hospital could adjust charges for their major and minor emergency care, which could result in higher bills for those with real emergencies. Alternatively, widely scattered lower cost 24-hour facilities could be organized to function as walk-in clinics,

a solution adopted by many large group practices and health maintenance organizations. That a market exists for these facilities is attested by the development of free-standing emergency rooms that provide services completely independent of a hospital. These "ER's" are found in shopping centers in some Eastern states and are beginning to appear in the West. These solutions, however, would pose a direct threat to practicing physicians, might further increase patient demand for ER-type services and would almost certainly exacerbate the problem of the rising costs of medical care.¹⁶ In the interim, perhaps ER's should be asked to recognize their responsibility for the follow-up of patients presenting for episodic care of nonurgent problems.¹⁷

It seems that the complexity of the problem of increasing ER use is more apparent than its solution. What is clear is that the prevention and treatment of real emergencies must continue to receive the kind of attention described in the Trauma Rounds, while we also begin to address the intricate problem of inappropriate use of ER's.

STEVEN A. SCHROEDER, MD
Associate Professor of Medicine
Health Policy Program
University of California, San Francisco

REFERENCES

1. Annual Report to the National Academy of Sciences—Fiscal Year 1965-66. Washington, DC, National Research Council, 1966
2. Gibson G: Emergency Medical Services in the Chicago Area. Chicago, Center for Health Administration Studies, University of Chicago, 1976
3. Hospital Statistics, 1978. Chicago, 1978 American Hospital Association.
4. The potentials and limitations of emergency medical services (Editorial note). *Hospitals/J Am Hosp Assoc* 47:57-58, 1973
5. Mangold KG: The financial realities of EMS. *Hospitals/J Am Hosp Assoc* 47:89-96, 1973
6. California Hospital Data for Health Systems Agencies—Vol. 1. Sacramento, California Health Facilities Commission, 1977
7. Zaretsky HW, Morris AW: Hospital Fact Book, 2nd edition. Sacramento, California Hospital Association, 1977
8. Darling vs. Charleston Community Memorial Hospital, 37 Ill 2d 326 (1965); Cert. denied. 383 US 946 (1966)
9. Sadler AM, Sadler BC, Webb SB: Emergency medical care: The neglected public services. Cambridge, MA, Ballinger Pub Co, 1977
10. Egerton JR: Is your time on call a waste of time? *Medical Economics*, Sep 4, 1978, p 187
11. Walker LL: Why do patients use the emergency room? *Hosp Top* 53:19, 1975
12. Brook RH, Stevenson RL: Effectiveness of patient care in an emergency room. *N Engl J Med* 283:904-907, 1970
13. Brook RH, Berg MH, Schechter P: Effectiveness of non-emergency care via an emergency room—A study of 116 patients with gastrointestinal symptoms. *Ann Intern Med* 78:333-339, 1973
14. Hochheiser LI, Woodward K, Charney E: Effect of the neighborhood health center on the use of pediatric emergency departments in Rochester, New York. *N Engl J Med* 285:148-152, 1971
15. Ullman R, Block JA, Boatright NC, et al: Impact of a primary care group practice on emergency room utilization at a community hospital. *Medical Care* 16:723-729, 1978
16. The ailing health care system—Medical Staff Conference, University of California, San Francisco. *West J Med* 128:512-526, 1978
17. Glass RI, Mirel R, Hollander G, et al: Screening for hypertension in the emergency department. *JAMA* 240:1973-1974, 1978